

PATENT

Atty. Dkt. No. YOR920030507US1

IN THE CLAIMS

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1. - 35. (Cancelled)

36. (Currently Amended) A method for optimizing an allocation of system resources, comprising:

determining, for each source from which a system receives job requests, a minimum percentage of job requests to be processed by the system, where the system receives job requests from at least two separate sources;

allocating system resources among the at least two separate sources to meet at least one job processing obligation and to maximize a total profit of the system; and

scheduling a processing order of new job requests on-line, wherein said scheduling is accomplished by:

determining a completion deadline for a new job request;

determining an estimated process time for the new job request as  
estimating a length of time needed to process the new job request by the  
completion deadline; and

scheduling a process time processing for the new job request based on the completion deadline and [[an]] the estimated process time as compared to completion deadlines and estimated process times for existing jobs in the system;

routing the new job request to a server in the system that can complete processing for the new job request [[the]] soonest;

assigning the new job request to an end of a server's job queue of the server;

determining whether [[an]] a cumulative length of time necessary to process all jobs in the job queue, including the new job request, exceeds a longest latest completion deadline among all jobs in the job queue; and

temporarily stopping work on a job in the job queue having a longest estimated processing time, if the cumulative length of time necessary to process all jobs in the job queue, including the new job request, exceeds a longest the latest completion deadline among all jobs in the job queue.